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Femara[®]
(letrozole tablets)

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2.5 mg Tablets

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Rx only

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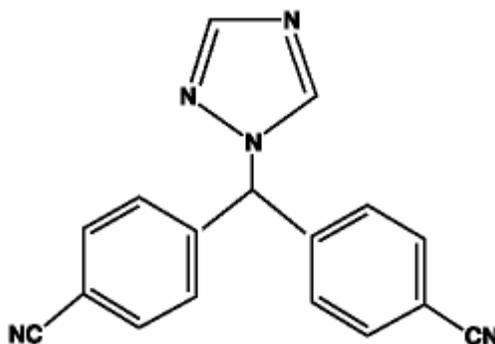
Prescribing Information

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DESCRIPTION

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Femara[®] (letrozole tablets) for oral administration contains 2.5 mg of letrozole, a nonsteroidal aromatase inhibitor (inhibitor of estrogen synthesis). It is chemically described as 4,4'-(1H-1,2,4-Triazol-1-ylmethylene)dibenzonitrile, and its structural formula is



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Letrozole is a white to yellowish crystalline powder, practically odorless, freely soluble in dichloromethane, slightly soluble in ethanol, and practically insoluble in water. It has a molecular weight of 285.31, empirical formula C₁₇H₁₁N₅, and a melting range of 184°C-185°C.

21

Femara[®] (letrozole tablets) is available as 2.5 mg tablets for oral administration.

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Inactive Ingredients. Colloidal silicon dioxide, ferric oxide, hydroxypropyl methylcellulose, lactose monohydrate, magnesium stearate, maize starch, microcrystalline cellulose, polyethylene glycol, sodium starch glycolate, talc, and titanium dioxide.

25 **CLINICAL PHARMACOLOGY**

26 **Mechanism of Action**

27 The growth of some cancers of the breast is stimulated or maintained by estrogens. Treatment
28 of breast cancer thought to be hormonally responsive (i.e., estrogen and/or progesterone
29 receptor positive or receptor unknown) has included a variety of efforts to decrease estrogen
30 levels (ovariectomy, adrenalectomy, hypophysectomy) or inhibit estrogen effects
31 (antiestrogens and progestational agents). These interventions lead to decreased tumor mass
32 or delayed progression of tumor growth in some women.

33 In postmenopausal women, estrogens are mainly derived from the action of the
34 aromatase enzyme, which converts adrenal androgens (primarily androstenedione and
35 testosterone) to estrone and estradiol. The suppression of estrogen biosynthesis in peripheral
36 tissues and in the cancer tissue itself can therefore be achieved by specifically inhibiting the
37 aromatase enzyme.

38 Letrozole is a nonsteroidal competitive inhibitor of the aromatase enzyme system; it
39 inhibits the conversion of androgens to estrogens. In adult nontumor- and tumor-bearing
40 female animals, letrozole is as effective as ovariectomy in reducing uterine weight, elevating
41 serum LH, and causing the regression of estrogen-dependent tumors. In contrast to
42 ovariectomy, treatment with letrozole does not lead to an increase in serum FSH. Letrozole
43 selectively inhibits gonadal steroidogenesis but has no significant effect on adrenal
44 mineralocorticoid or glucocorticoid synthesis.

45 Letrozole inhibits the aromatase enzyme by competitively binding to the heme of the
46 cytochrome P450 subunit of the enzyme, resulting in a reduction of estrogen biosynthesis in
47 all tissues. Treatment of women with letrozole significantly lowers serum estrone, estradiol
48 and estrone sulfate and has not been shown to significantly affect adrenal corticosteroid
49 synthesis, aldosterone synthesis, or synthesis of thyroid hormones.

50 **Pharmacokinetics**

51 Letrozole is rapidly and completely absorbed from the gastrointestinal tract and absorption is
52 not affected by food. It is metabolized slowly to an inactive metabolite whose glucuronide
53 conjugate is excreted renally, representing the major clearance pathway. About 90% of
54 radiolabeled letrozole is recovered in urine. Letrozole's terminal elimination half-life is about
55 2 days and steady-state plasma concentration after daily 2.5 mg dosing is reached in 2-6
56 weeks. Plasma concentrations at steady-state are 1.5 to 2 times higher than predicted from the
57 concentrations measured after a single dose, indicating a slight non-linearity in the
58 pharmacokinetics of letrozole upon daily administration of 2.5 mg. These steady-state levels
59 are maintained over extended periods, however, and continuous accumulation of letrozole
60 does not occur. Letrozole is weakly protein bound and has a large volume of distribution
61 (approximately 1.9 L/kg).

62 **Metabolism and Excretion**

63 Metabolism to a pharmacologically-inactive carbinol metabolite (4,4'-methanol-
64 bisbenzonnitrile) and renal excretion of the glucuronide conjugate of this metabolite is the
65 major pathway of letrozole clearance. Of the radiolabel recovered in urine, at least 75% was

66 the glucuronide of the carbinol metabolite, about 9% was two unidentified metabolites, and
67 6% was unchanged letrozole.

68 In human microsomes with specific CYP isozyme activity, CYP3A4 metabolized
69 letrozole to the carbinol metabolite while CYP2A6 formed both this metabolite and its ketone
70 analog. In human liver microsomes, letrozole strongly inhibited CYP2A6 and moderately
71 inhibited CYP2C19.

72 **Special Populations**

73 ***Pediatric, Geriatric and Race***

74 In the study populations (adults ranging in age from 35 to >80 years), no change in
75 pharmacokinetic parameters was observed with increasing age. Differences in letrozole
76 pharmacokinetics between adult and pediatric populations have not been studied. Differences
77 in letrozole pharmacokinetics due to race have not been studied.

78 ***Renal Insufficiency***

79 In a study of volunteers with varying renal function (24-hour creatinine clearance:
80 9-116 mL/min), no effect of renal function on the pharmacokinetics of single doses of 2.5 mg
81 of Femara[®] (letrozole tablets) was found. In addition, in a study of 347 patients with advanced
82 breast cancer, about half of whom received 2.5 mg Femara and half 0.5 mg Femara, renal
83 impairment (calculated creatinine clearance: 20-50 mL/min) did not affect steady-state plasma
84 letrozole concentration.

85 ***Hepatic Insufficiency***

86 In a study of subjects with mild to moderate non-metastatic hepatic dysfunction
87 (e.g., cirrhosis, Child-Pugh classification A and B), the mean AUC values of the volunteers
88 with moderate hepatic impairment were 37% higher than in normal subjects, but still within
89 the range seen in subjects without impaired function. In a pharmacokinetics study, subjects
90 with liver cirrhosis and severe hepatic impairment (Child-Pugh classification C, which
91 included bilirubins about 2-11 times ULN with minimal to severe ascites) had two-fold
92 increase in exposure (AUC) and 47% reduction in systemic clearance. Breast cancer patients
93 with severe hepatic impairment are thus expected to be exposed to higher levels of letrozole
94 than patients with normal liver function receiving similar doses of this drug. (See DOSAGE
95 AND ADMINISTRATION, Hepatic Impairment.)

96 ***Drug/Drug Interactions***

97 A pharmacokinetic interaction study with cimetidine showed no clinically significant effect
98 on letrozole pharmacokinetics. An interaction study with warfarin showed no clinically
99 significant effect of letrozole on warfarin pharmacokinetics. In *in-vitro* experiments, letrozole
100 showed no significant inhibition in the metabolism of diazepam. Similarly, no significant
101 inhibition of letrozole metabolism by diazepam was observed.

102 Coadministration of Femara and tamoxifen 20 mg daily resulted in a reduction of
103 letrozole plasma levels of 38% on average. Clinical experience in the second-line breast

104 cancer pivotal trials indicates that the therapeutic effect of Femara therapy is not impaired if
105 Femara is administered immediately after tamoxifen.

106 There is no clinical experience to date on the use of Femara in combination with other
107 anticancer agents.

108 **Pharmacodynamics**

109 In postmenopausal patients with advanced breast cancer, daily doses of 0.1 mg to 5 mg
110 Femara suppress plasma concentrations of estradiol, estrone, and estrone sulfate by 75%-95%
111 from baseline with maximal suppression achieved within two-three days. Suppression is dose-
112 related, with doses of 0.5 mg and higher giving many values of estrone and estrone sulfate
113 that were below the limit of detection in the assays. Estrogen suppression was maintained
114 throughout treatment in all patients treated at 0.5 mg or higher.

115 Letrozole is highly specific in inhibiting aromatase activity. There is no impairment
116 of adrenal steroidogenesis. No clinically-relevant changes were found in the plasma
117 concentrations of cortisol, aldosterone, 11-deoxycortisol, 17-hydroxy-progesterone, ACTH or
118 in plasma renin activity among postmenopausal patients treated with a daily dose of Femara
119 0.1 mg to 5 mg. The ACTH stimulation test performed after 6 and 12 weeks of treatment with
120 daily doses of 0.1, 0.25, 0.5, 1, 2.5, and 5 mg did not indicate any attenuation of aldosterone
121 or cortisol production. Glucocorticoid or mineralocorticoid supplementation is, therefore, not
122 necessary.

123 No changes were noted in plasma concentrations of androgens (androstenedione and
124 testosterone) among healthy postmenopausal women after 0.1, 0.5, and 2.5 mg single doses of
125 Femara or in plasma concentrations of androstenedione among postmenopausal patients
126 treated with daily doses of 0.1 mg to 5 mg. This indicates that the blockade of estrogen
127 biosynthesis does not lead to accumulation of androgenic precursors. Plasma levels of LH and
128 FSH were not affected by letrozole in patients, nor was thyroid function as evaluated by TSH
129 levels, T3 uptake, and T4 levels.

130 **CLINICAL STUDIES**

131 **Adjuvant Treatment of Early Breast Cancer in Postmenopausal Women**

132 A multicenter, double-blind study randomized over 8000 postmenopausal women with
133 resected, receptor-positive early breast cancer to one of the following arms:

- 134 A. tamoxifen for 5 years
- 135 B. Femara for 5 years
- 136 C. tamoxifen for 2 years followed by Femara for 3 years
- 137 D. Femara for 2 years followed by tamoxifen for 3 years

138
139 Median treatment duration was 24 months, median follow-up duration was 26 months, 76% of
140 the patients have been followed for more than 2 years, and 16% of patients for 5 years or
141 longer.

142
143

144 Data in Table 2 reflect results from non-switching arms (arms A and B) together with
 145 data truncated 30 days after the switch in the two switching arms (arms C and D). The
 146 analysis of monotherapy vs. sequencing of endocrine treatments will be conducted when the
 147 necessary number of events has been achieved. Selected baseline characteristics for the
 148 study population are shown in Table 1.

149

150 **Table 1: Selected Study Population Demographics for Adjuvant Study (ITT population)**

151 Baseline Status	Femara	tamoxifen
152	N=4003	N=4007
153 Age (median, years)	61	61
154 Age range (years)	38-89	39-90
155 Hormone receptor status (%)		
156 ER+ and/or PgR+	99.7	99.7
157 Both unknown	0.3	0.3
158 Nodal status (%)		
159 Node negative	52	52
160 Node positive	41	41
161 Nodal status unknown	7	7
162 Prior adjuvant chemotherapy (%)	25	25

164

165 **Table 2 : Adjuvant Study Results**

166

	Femara	tamoxifen	Hazard Ratio	P-Value
	N=4003	N=4007	(95 % CI)	
Disease-free survival ¹	296	369	0.79 (0.68, 0.92)	0.002
o Node positive			0.71 (0.59, 0.86)	0.0005
o Node negative			0.92 (0.70, 1.22)	0.572
o Prior adjuvant chemotherapy			0.70 (0.53, 0.93)	0.013
o No chemotherapy			0.83 (0.69, 1.00)	0.046
Systemic disease-free survival ²	268	321	0.83 (0.70, 0.97)	0.022
Time to distant metastasis ³	184	249	0.73 (0.60, 0.88)	0.001
o Node positive			0.67; (0.54, 0.84)	0.0005
o Node negative			0.90; (0.60, 1.34)	0.597
o Prior adjuvant chemotherapy			0.69; (0.50, 0.95)	0.024
o No chemotherapy			0.75; (0.60, 0.95)	0.018
Contralateral breast cancer	19	31	0.61 (0.35, 1.08)	0.091

Overall survival	166	192	0.86 (0.70, 1.06)	0.155
o Node positive			0.81 (0.63, 1.05)	0.113
o Node negative			0.88 (0.59, 1.30)	0.507
o Prior adjuvant chemotherapy			0.76 (0.51, 1.14)	0.185
o No chemotherapy			0.90 (0.71, 1.15)	0.395

*Definition of

1 Disease free survival: Time from randomization to the earliest occurrence of invasive loco-regional recurrence, distant metastases, invasive contralateral breast cancer, or death from any cause.

2 Systemic disease free survival: Time from randomization to invasive regional recurrence, distant metastases, or death from any cause

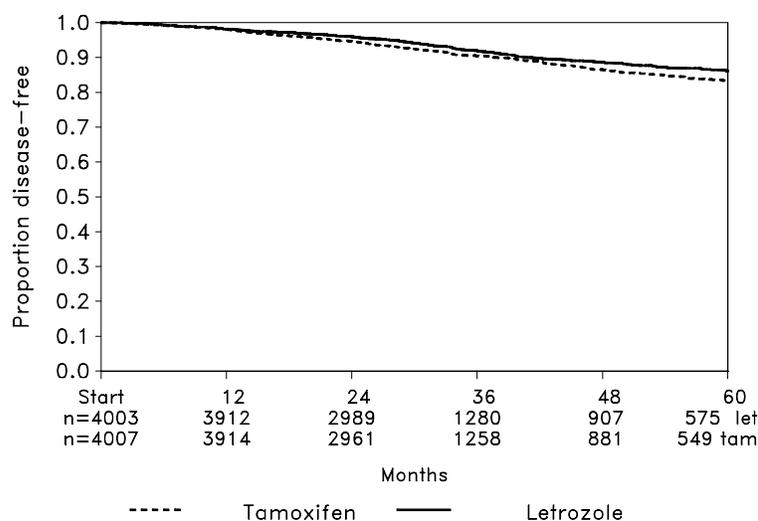
3 Time to distant metastasis: Time from randomization to distant metastases.

167 Figure 1 shows the Kaplan-Meier curves for DFS.

168

Figure 1 Disease-free survival (ITT population)

169



170

171

172

173 **Extended Adjuvant Treatment of Early Breast Cancer in Postmenopausal Women After**
 174 **Completion of 5 Years of Adjuvant Tamoxifen Therapy.**

175 A double-blind, randomized, placebo-controlled trial of Femara was performed in over 5100
 176 postmenopausal women with receptor-positive or unknown primary breast cancer who were
 177 disease-free after 5 years of adjuvant treatment with tamoxifen. Patients had to be within 3
 178 months of completing the 5 years of tamoxifen.

179 The planned duration of treatment for patients in the study was 5 years, but the trial
 180 was terminated early because of an interim analysis showing a favorable Femara effect on
 181 time without recurrence or contralateral breast cancer. At the time of unblinding, women had

182 been followed for a median of 28 months, 30% of patients had completed 3 or more years of
 183 follow-up and less than 1% of patients had completed 5 years of follow-up.

184

185 Selected baseline characteristics for the study population are shown in Table 3.

186 **Table 3: Selected Study Population Demographics (Modified ITT population)**

187 Baseline Status	Femara	Placebo
188	N=2582	N=2586
189 Hormone receptor status (%)		
190 ER+ and/or PgR+	98	98
191 Both unknown	2	2
192 Nodal status (%)		
193 Node negative	50	50
194 Node positive	46	46
195 Nodal status unknown	4	4
196 Chemotherapy	46	46

198 Table 4 shows the study results. Disease-free survival was measured as the time from
 199 randomization to the earliest event of loco-regional or distant recurrence of the primary
 200 disease or development of contralateral breast cancer or death. Data were premature for an
 201 analysis of survival.

202 **Table 4: Extended Adjuvant Study Results**

	Femara	Placebo	Hazard Ratio	P-Value
	N = 2582	N = 2586	(95% CI)	
-				
Disease Free Survival (DFS) (First event of loco-regional recurrence, distant relapse, contralateral breast cancer or death from any cause)	122 (4.7%)	193 (7.5%)	0.62 (0.49, 0.78) ¹	0.00003
Local breast recurrence	9	22		
Local chest wall recurrence	2	8		
Regional recurrence	7	4		
Distant recurrence	55	92	0.61 (0.44 - 0.84)	0.003
Contralateral breast cancer	19	29		
Deaths without recurrence or contralateral breast cancer	30	38		
DFS by stratification				
Receptor status				
- positive	117/2527(4.6%)	190/2530(7.5%)	0.60(0.48,0.76)	
- unknown	5/55(9.1%)	3/56(5.4%)	1.78(0.43,7.5)	
nodal status				
- positive	77/1184(6.5%)	123/1187(10.4%)	0.61(0.46,0.81)	
- negative	39/1298(3.0%)	63/1301(4.8%)	0.61(0.41,0.91)	
- unknown	6/100(6.0%)	7/98(7.1%)	0.81(0.27,2.4)	
adjuvant chemotherapy				
- yes	58/1197(4.8%)	88/1199(7.3%)	0.64(0.46,0.90)	
- no	64/1385(4.6%)	105/1387(7.6%)	0.60(0.44,0.81)	

	Femara N = 2582	Placebo N = 2586	Hazard Ratio (95% CI)	P-Value
--	----------------------------	-----------------------------	----------------------------------	----------------

CI = confidence interval for hazard ratio. Hazard ratio of less than 1.0 indicates difference in favor of Femara (lesser risk of recurrence); hazard ratio greater than 1.0 indicates difference in favor of placebo (higher risk of recurrence with Femara).

¹ Analysis stratified by receptor status, nodal status and prior adjuvant chemotherapy (stratification factors as at randomization). P-value based on stratified logrank test.

203

204 **First-Line Breast Cancer**

205 A randomized, double-blinded, multinational trial compared Femara 2.5 mg with tamoxifen
206 20 mg in 916 postmenopausal patients with locally advanced (Stage IIIB or locoregional
207 recurrence not amenable to treatment with surgery or radiation) or metastatic breast cancer.
208 Time to progression (TTP) was the primary endpoint of the trial. Selected baseline
209 characteristics for this study are shown in Table 5.

210

Table 5: Selected Study Population Demographics

Baseline Status	Femara N=458	tamoxifen N=458
Stage of Disease		
IIIB	6%	7%
IV	93%	92%
Receptor Status		
ER and PgR Positive	38%	41%
ER or PgR Positive	26%	26%
Both Unknown	34%	33%
ER ⁻ or PgR ⁻ / Other Unknown	<1%	0
Previous Antiestrogen Therapy		
Adjuvant	19%	18%
None	81%	82%
Dominant Site of Disease		
Soft Tissue	25%	25%
Bone	32%	29%
Viscera	43%	46%

228 Femara was superior to tamoxifen in TTP and rate of objective tumor response (see Table 6).

229 Table 6 summarizes the results of the trial, with a total median follow-up of approximately 32
230 months. (All analyses are unadjusted and use 2-sided P-values.)

231

Table 6: Results

	Femara 2.5 mg N=453	tamoxifen 20 mg N=454	Hazard or Odds Ratio (95% CI) P-value (2-sided)
Median Time to Progression	9.4 months	6.0 months	0.72 (0.62, 0.83) ¹ P<0.0001
Objective Response Rate (CR + PR)	145 (32%)	95 (21%)	1.77 (1.31, 2.39) ²

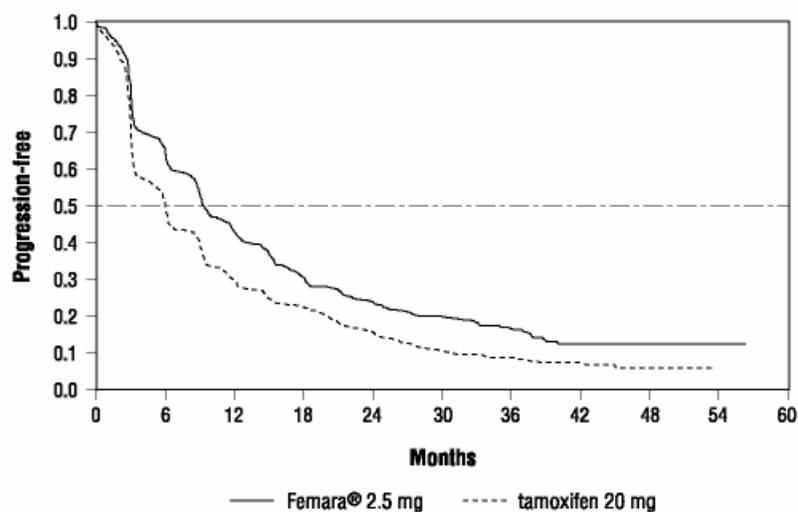
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241				P=0.0002
242	(CR)	42 (9%)	15 (3%)	2.99 (1.63, 5.47) ²
243				P=0.0004
244	Duration of Objective			
245	Response			
246	Median	18 months	16 months	
247		(N=145)	(N=95)	
248	Overall Survival	35 months	32 months	
249		(N=458)	(N=458)	P=0.5136 ³
250	¹ Hazard ratio			
251	² Odds ratio			
252	³ Overall logrank test			

253

254 Figure 2 shows the Kaplan-Meier curves for TTP.

255 **Figure 2: Kaplan-Meier Estimates of Time to Progression**
 256 **(Tamoxifen Study)**



257

258 Table 7 shows results in the subgroup of women who had received prior antiestrogen
 259 adjuvant therapy, Table 8, results by disease site and Table 9, the results by receptor status.

260

261 **Table 7: Efficacy in Patients Who Received Prior**
 262 **Antiestrogen Therapy**

263 Variable	Femara 2.5 mg N=84	tamoxifen 20 mg N=83
266 Median Time to		
267 Progression (95% CI)	8.9 months (6.2, 12.5)	5.9 months (3.2, 6.2)
268 Hazard Ratio		
269 for TTP (95% CI)	0.60 (0.43, 0.84)	
270 Objective Response Rate		
271 (CR + PR)	22 (26%)	7 (8%)

272 Odds Ratio for
273 Response (95% CI) 3.85 (1.50, 9.60)

274 Hazard ratio less than 1 or odds ratio greater than 1 favors Femara; hazard ratio greater than 1 or odds ratio less
275 than 1 favors tamoxifen.

276 **Table 8: Efficacy by Disease Site**

	Femara 2.5 mg	tamoxifen 20 mg
Dominant Disease Site		
Soft Tissue:	N=113	N=115
Median TTP	12.1 months	6.4 months
Objective Response Rate	50%	34%
Bone:	N=145	N=131
Median TTP	9.5 months	6.3 months
Objective Response Rate	23%	15%
Viscera:	N=195	N=208
Median TTP	8.3 months	4.6 months
Objective Response Rate	28%	17%

293 **Table 9: Efficacy by Receptor Status**

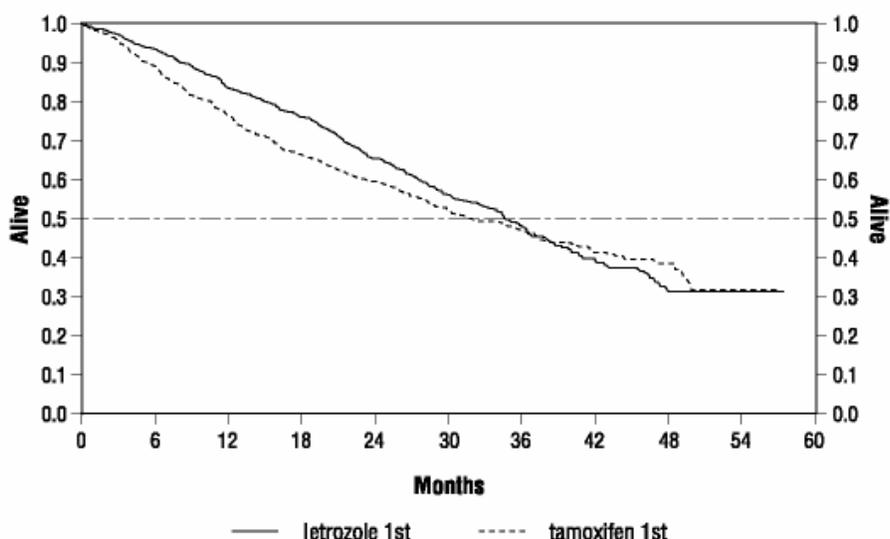
Variable	Femara® 2.5 mg	tamoxifen 20 mg
Receptor Positive	N=294	N=305
Median Time to Progression (95% CI)	9.4 months (8.9, 11.8)	6.0 months (5.1, 8.5)
Hazard Ratio for TTP (95% CI)	0.69 (0.58, 0.83)	
Objective Response Rate (CR+PR)	97 (33%)	66 (22%)
Odds Ratio for Response (95% CI)	1.78 (1.20, 2.60)	
Receptor Unknown	N=159	N=149
Median Time to Progression (95% CI)	9.2 months (6.1, 12.3)	6.0 months (4.1, 6.4)
Hazard Ratio for TTP (95% CI)	0.77 (0.60, 0.99)	
Objective Response Rate (CR+PR)	48 (30%)	29 (20%)
Odds Ratio for Response (95% CI)	1.79 (1.10, 3.00)	

314 Hazard ratio less than 1 or odds ratio greater than 1 favors Femara; hazard ratio greater than 1 or odds ratio less
315 than 1 favors tamoxifen.

316 Figure 3 shows the Kaplan-Meier curves for survival.

317

Figure 3: Survival by Randomized Treatment Arm



318

319 **Legend:** Randomized Femara: n=458, events 57%, median overall survival 35 months (95% CI 32 to
320 38 months)

321 Randomized tamoxifen: n=458, events 57%, median overall survival 32 months (95% CI 28 to 37
322 months)

323 Overall logrank P=0.5136 (i.e., there was no significant difference between treatment arms in overall
324 survival).

325 The median overall survival was 35 months for the Femara group and 32 months for
326 the tamoxifen group, with a P value 0.5136.

327 Study design allowed patients to crossover upon progression to the other therapy.
328 Approximately 50% of patients crossed over to the opposite treatment arm and almost all
329 patients who crossed over had done so by 36 months. The median time to crossover was 17
330 months (Femara to tamoxifen) and 13 months (tamoxifen to Femara). In patients who did not
331 crossover to the opposite treatment arm, median survival was 35 months with Femara (n=219,
332 95% CI 29 to 43 months) vs. 20 months with tamoxifen (n=229, 95% CI 16 to 26 months).

333 **Second-Line Breast Cancer**

334 Femara was initially studied at doses of 0.1 mg to 5.0 mg daily in six non-comparative Phase
335 I/II trials in 181 postmenopausal estrogen/progesterone receptor positive or unknown
336 advanced breast cancer patients previously treated with at least anti-estrogen therapy. Patients
337 had received other hormonal therapies and also may have received cytotoxic therapy. Eight
338 (20%) of forty patients treated with Femara 2.5 mg daily in Phase I/II trials achieved an
339 objective tumor response (complete or partial response).

340 Two large randomized controlled multinational (predominantly European) trials were
341 conducted in patients with advanced breast cancer who had progressed despite antiestrogen
342 therapy. Patients were randomized to Femara 0.5 mg daily, Femara 2.5 mg daily, or a
343 comparator (megestrol acetate 160 mg daily in one study; and aminoglutethimide 250 mg

344 b.i.d. with corticosteroid supplementation in the other study). In each study over 60% of the
 345 patients had received therapeutic antiestrogens, and about one-fifth of these patients had had
 346 an objective response. The megestrol acetate controlled study was double-blind; the other
 347 study was open label. Selected baseline characteristics for each study are shown in Table 10.

348 **Table 10: Selected Study Population Demographics**

349 Parameter	megestrol acetate 350 study	aminoglutethimide 350 study
351 No. of Participants	552	557
352 Receptor Status		
353 ER/PR Positive	57%	56%
354 ER/PR Unknown	43%	44%
355 Previous Therapy		
356 Adjuvant Only	33%	38%
357 Therapeutic +/- Adj.	66%	62%
358 Sites of Disease		
359 Soft Tissue	56%	50%
360 Bone	50%	55%
361 Viscera	40%	44%

362 Confirmed objective tumor response (complete response plus partial response) was the
 363 primary endpoint of the trials. Responses were measured according to the Union
 364 Internationale Contre le Cancer (UICC) criteria and verified by independent, blinded review.
 365 All responses were confirmed by a second evaluation 4-12 weeks after the documentation of
 366 the initial response.

367 Table 11 shows the results for the first trial, with a minimum follow-up of 15 months,
 368 that compared Femara 0.5 mg, Femara 2.5 mg, and megestrol acetate 160 mg daily. (All
 369 analyses are unadjusted.)

370 **Table 11: Megestrol Acetate Study Results**

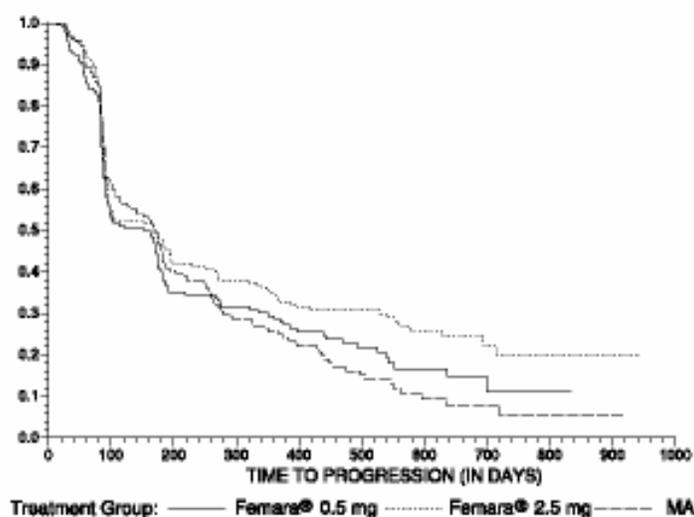
371	Femara [®] 372 0.5 mg 373 N=188	Femara [®] 372 2.5 mg 373 N=174	megestrol 372 acetate 373 N=190
374 Objective			
375 Response			
376 (CR + PR)	22 (11.7%)	41 (23.6%)	31 (16.3%)
377 Median Duration			
378 of Response	552 days	(Not reached)	561 days
379 Median Time			
380 to Progression	154 days	170 days	168 days
381 Median			
382 Survival	633 days	730 days	659 days
383 Odds Ratio			
384 for Response	Femara 2.5: Femara 0.5 = 2.33 385 (95% CI: 1.32, 4.17); P=0.004*		Femara 2.5: megestrol = 1.58 385 (95% CI: 0.94, 2.66); P=0.08*
386 Relative Risk			
387 of Progression	Femara 2.5: Femara 0.5 = 0.81		Femara 2.5: megestrol = 0.77

388 (95% CI: 0.63, 1.03); P=0.09* (95% CI: 0.60, 0.98), P=0.03*

389 * two-sided P-value

390 The Kaplan-Meier Curve for progression for the megestrol acetate study is shown in
391 Figure 4.

392 **Figure 4: Kaplan-Meier Estimates of Time to Progression (Megestrol Acetate Study)**



393

394 The results for the study comparing Femara to aminoglutethimide, with a minimum
395 follow-up of nine months, are shown in Table 12. (Unadjusted analyses are used.)

396

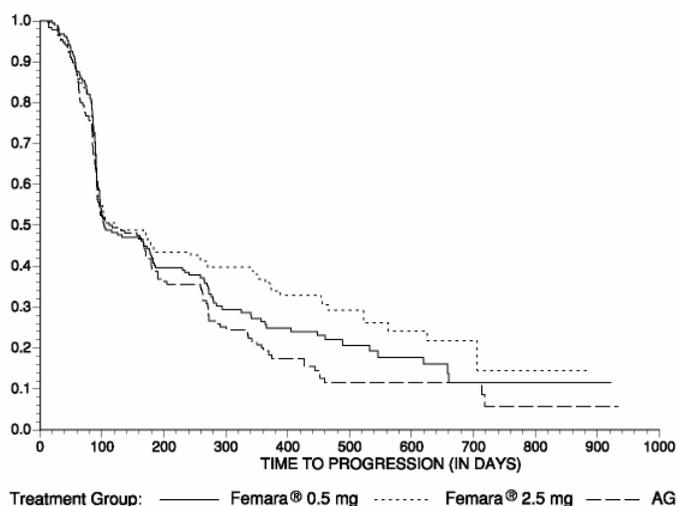
Table 12: Aminoglutethimide Study Results

	Femara® 0.5 mg N=193	Femara® 2.5 mg N=185	aminoglutethimide N=179
400 Objective			
401 Response			
402 (CR + PR)	34 (17.6%)	34 (18.4%)	22 (12.3%)
403 Median			
404 Duration of			
405 Response	619 days	706 days	450 days
406 Median			
407 Time To			
408 Progression	103 days	123 days	112 days
409 Median			
410 Survival	636 days	792 days	592 days
411 Odds Ratio			
412 for Response	Femara 2.5: Femara 0.5=1.05 (95% CI: 0.62, 1.79); P=0.85*		Femara 2.5: aminoglutethimide=1.61 (95% CI: 0.90, 2.87); P=0.11*
413			
414			
415 Relative Risk			
416 of Progression	Femara 2.5:		Femara 2.5:

417 Femara 0.5=0.86 aminoglutethimide=0.74
 418 (95% CI: 0.68, 1.11); P=0.25* (95% CI: 0.57, 0.94), P=0.02*
 419 *two-sided P-value

420 The Kaplan-Meier Curve for progression for the aminoglutethimide study is shown in
 421 Figure 5.

422 **Figure 5 : Kaplan-Meier Estimates of Time to Progression (Aminoglutethimide Study)**



423

424 INDICATIONS AND USAGE

425 Femara[®] (letrozole tablets) is indicated for the adjuvant treatment of postmenopausal women
 426 with hormone receptor positive early breast cancer (see CLINICAL STUDIES).

427 The effectiveness of Femara in early breast cancer is based on an analysis of disease-
 428 free survival in patients treated for a median of 24 months and followed for a median of 26
 429 months (see CLINICAL STUDIES). Follow up analyses will determine long-term outcomes
 430 for both safety and efficacy.

431 Femara is indicated for the extended adjuvant treatment of early breast cancer in
 432 postmenopausal women who have received 5 years of adjuvant tamoxifen therapy (see
 433 CLINICAL STUDIES). The effectiveness of Femara in extended adjuvant treatment of early
 434 breast cancer is based on an analysis of disease-free survival in patients treated for a median
 435 of 24 months (see CLINICAL STUDIES). Further data will be required to determine long-
 436 term outcome.

437 Femara is indicated for first-line treatment of postmenopausal women with hormone
 438 receptor positive or hormone receptor unknown locally advanced or metastatic breast cancer.
 439 Femara is also indicated for the treatment of advanced breast cancer in postmenopausal
 440 women with disease progression following antiestrogen therapy.

441 **CONTRAINDICATIONS**

442 Femara[®] (letrozole tablets) is contraindicated in patients with known hypersensitivity to
443 Femara or any of its excipients.

444 **WARNINGS**

445 **Pregnancy**

446 Femara may cause fetal harm when administered to pregnant women. Studies in rats at doses
447 equal to or greater than 0.003 mg/kg (about 1/100 the daily maximum recommended human
448 dose on a mg/m² basis) administered during the period of organogenesis, have shown that
449 letrozole is embryotoxic and fetotoxic, as indicated by intrauterine mortality, increased
450 resorption, increased postimplantation loss, decreased numbers of live fetuses and fetal
451 anomalies including absence and shortening of renal papilla, dilation of ureter, edema and
452 incomplete ossification of frontal skull and metatarsals. Letrozole was teratogenic in rats. A
453 0.03 mg/kg dose (about 1/10 the daily maximum recommended human dose on a mg/m²
454 basis) caused fetal domed head and cervical/centrum vertebral fusion.

455 Letrozole is embryotoxic at doses equal to or greater than 0.002 mg/kg and fetotoxic
456 when administered to rabbits at 0.02 mg/kg (about 1/100,000 and 1/10,000 the daily
457 maximum recommended human dose on a mg/m² basis, respectively). Fetal anomalies
458 included incomplete ossification of the skull, sternebrae, and fore- and hindlegs.

459 There are no studies in pregnant women. Femara[®] (letrozole tablets) is indicated for
460 postmenopausal women. If there is exposure to letrozole during pregnancy, the patient should
461 be apprised of the potential hazard to the fetus and potential risk for loss of the pregnancy.

462 **PRECAUTIONS**

463 Since fatigue and dizziness have been observed with the use of Femara[®] (letrozole tablets)
464 and somnolence was uncommonly reported, caution is advised when driving or using
465 machinery.

466 **Laboratory Tests**

467 No dose-related effect of Femara on any hematologic or clinical chemistry parameter was
468 evident. Moderate decreases in lymphocyte counts, of uncertain clinical significance, were
469 observed in some patients receiving Femara 2.5 mg. This depression was transient in about
470 half of those affected. Two patients on Femara developed thrombocytopenia; relationship to
471 the study drug was unclear. Patient withdrawal due to laboratory abnormalities, whether
472 related to study treatment or not, was infrequent.

473 Increases in SGOT, SGPT, and gamma GT \geq 5 times the upper limit of normal (ULN)
474 and of bilirubin \geq 1.5 times the ULN were most often associated with metastatic disease in the
475 liver. About 3% of study participants receiving Femara had abnormalities in liver chemistries
476 not associated with documented metastases; these abnormalities may have been related to
477 study drug therapy. In the megestrol acetate comparative study about 8% of patients treated
478 with megestrol acetate had abnormalities in liver chemistries that were not associated with

479 documented liver metastases; in the aminoglutethimide study about 10% of
480 aminoglutethimide-treated patients had abnormalities in liver chemistries not associated with
481 hepatic metastases.

482 **In the adjuvant setting, an increase in total cholesterol** (generally non-fasting) in
483 patients who had baseline values of total serum cholesterol within the normal range, and then
484 subsequently had an increase in total serum cholesterol of 1.5 ULN was 173/3203 (5.4%) on
485 letrozole vs. 40/3224 (1.2%) on tamoxifen. Lipid lowering medications were used by 18% of
486 patients on letrozole and 12% on tamoxifen.

487

488 **Bone Effects**

489 In the extended adjuvant setting, preliminary results (median duration of follow-up was 20
490 months) from the bone sub-study (Calcium 500 mg and Vitamin D 400 IU per day mandatory;
491 bisphosphonates not allowed) demonstrated that at 2 years the mean decrease compared to
492 baseline in hip BMD in Femara patients was 3% versus 0.4% for placebo ($P=0.048$). The
493 mean decrease from baseline BMD results for the lumbar spine at 2 years was Femara 4.6%
494 decrease and placebo 2.2% ($P=0.069$). Consideration should be given to monitoring BMD.

495 **Drug Interactions**

496 Clinical interaction studies with cimetidine and warfarin indicated that the coadministration of
497 Femara with these drugs does not result in clinically-significant drug interactions. (See
498 CLINICAL PHARMACOLOGY.)

499 Coadministration of Femara and tamoxifen 20 mg daily resulted in a reduction of
500 letrozole plasma levels by 38% on average. There is no clinical experience to date on the use
501 of Femara in combination with other anticancer agents.

502 **Hepatic Insufficiency**

503 Subjects with cirrhosis and severe hepatic dysfunction (see CLINICAL PHARMACOLOGY,
504 Special Populations) who were dosed with 2.5 mg of Femara experienced approximately
505 twice the exposure to Femara as healthy volunteers with normal liver function. Therefore, a
506 dose reduction is recommended for this patient population. The effect of hepatic impairment
507 on Femara exposure in cancer patients with elevated bilirubin levels has not been determined.
508 (See DOSAGE AND ADMINISTRATION.)

509 **Drug/Laboratory Test-Interactions**

510 None observed.

511 **Carcinogenesis, Mutagenesis, Impairment of Fertility**

512 A conventional carcinogenesis study in mice at doses of 0.6 to 60 mg/kg/day (about one to
513 100 times the daily maximum recommended human dose on a mg/m² basis) administered by
514 oral gavage for up to 2 years revealed a dose-related increase in the incidence of benign
515 ovarian stromal tumors. The incidence of combined hepatocellular adenoma and carcinoma
516 showed a significant trend in females when the high dose group was excluded due to low
517 survival. In a separate study, plasma AUC_{0-12hr} levels in mice at 60 mg/kg/day were 55 times

518 higher than the AUC_{0-24hr} level in breast cancer patients at the recommended dose. The
519 carcinogenicity study in rats at oral doses of 0.1 to 10 mg/kg/day (about 0.4 to 40 times the
520 daily maximum recommended human dose on a mg/m² basis) for up to 2 years also produced
521 an increase in the incidence of benign ovarian stromal tumors at 10 mg/kg/day. Ovarian
522 hyperplasia was observed in females at doses equal to or greater than 0.1 mg/kg/day. At
523 10 mg/kg/day, plasma AUC_{0-24hr} levels in rats were 80 times higher than the level in breast
524 cancer patients at the recommended dose.

525 Femara was not mutagenic in *in vitro* tests (Ames and E.coli bacterial tests) but was
526 observed to be a potential clastogen in *in vitro* assays (CHO K1 and CCL 61 Chinese hamster
527 ovary cells). Letrozole was not clastogenic *in vivo* (micronucleus test in rats).

528 Studies to investigate the effect of letrozole on fertility have not been conducted;
529 however, repeated dosing caused sexual inactivity in females and atrophy of the reproductive
530 tract in males and females at doses of 0.6, 0.1 and 0.03 mg/kg in mice, rats and dogs,
531 respectively (about one, 0.4 and 0.4 the daily maximum recommended human dose on a
532 mg/m² basis, respectively).

533 **Pregnancy**

534 ***Pregnancy Category D*** (See WARNINGS).

535 **Nursing Mothers**

536 It is not known if letrozole is excreted in human milk. Because many drugs are excreted in
537 human milk, caution should be exercised when letrozole is administered to a nursing woman
538 (see WARNINGS and PRECAUTIONS).

539 **Pediatric Use**

540 The safety and effectiveness in pediatric patients have not been established.

541 **Geriatric Use**

542 The median age of patients in all studies of first-line and second-line treatment of metastatic
543 breast cancer was 64-65 years. About 1/3 of the patients were ≥70 years old. In the first-line
544 study patients ≥70 years of age experienced longer time to tumor progression and higher
545 response rates than patients <70.

546 For the extended adjuvant setting, more than 5100 postmenopausal women were
547 enrolled in the clinical study. In total, 41% of patients were aged 65 years or older at
548 enrollment, while 12% were 75 or older. In the extended adjuvant setting, no overall
549 differences in safety or efficacy were observed between these older patients and younger
550 patients, and other reported clinical experience has not identified differences in responses
551 between the elderly and younger patients, but greater sensitivity of some older individuals
552 cannot be ruled out.

553 In the adjuvant setting, more than 8000 postmenopausal women were enrolled in the
554 clinical study. In total, 36 % of patients were aged 65 years or older at enrollment, while 12%
555 were 75 or older. More adverse events were generally reported in elderly patients irrespective
556 of study treatment allocation. However, in comparison to tamoxifen, no overall differences

557 with regards to the safety and efficacy profiles were observed between elderly patients and
558 younger patients.

559 **ADVERSE REACTIONS**

560 Femara[®] (letrozole tablets) was generally well tolerated across all studies in first-line and
561 second-line metastatic breast cancer, adjuvant treatment, as well as extended adjuvant
562 treatment in women who have received prior adjuvant tamoxifen treatment. Generally, the
563 observed adverse reactions are mild or moderate in nature.

564 **Adjuvant Treatment of Early Breast Cancer in Postmenopausal women**

565 The median duration of adjuvant treatment was 24 months and the median duration of follow-
566 up for safety was 26 months for patients receiving Femara and tamoxifen.

567 Certain adverse events were prospectively specified for analysis, based on the known
568 pharmacologic properties and side effect profiles of the two drugs.

569 Adverse events were analyzed irrespective of whether a symptom was present or
570 absent at baseline. Most adverse events reported (82%) were grade 1 or grade 2 applying the
571 Common Toxicity Criteria Version 2.0. Table 13 describes adverse events (grades 1-4)
572 irrespective of relationship to study treatment in the adjuvant BIG 1-98 trial (safety
573 population, during treatment or within 30 days of stopping treatment).

574

575 **Table 13 Patients with adverse events (CTC grades 1-4, irrespective of**
576 **relationship to study drug) in the adjuvant study BIG 1-98**

Adverse event	Grades 1-4				Grades 3-4			
	Letrozole		Tamoxifen		Letrozole		Tamoxifen	
	N=3975		N=3988		N=3975		N=3988	
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Hot flashes / flushes	1338	(33.7)	1515	(38.0)	0	-	0	-
Arthralgia/arthritis	840	(21.1)	535	(13.4)	88	(2.2)	49	(1.2)
Night sweats	561	(14.1)	654	(16.4)	0	-	0	-
Weight increase	425	(10.7)	515	(12.9)	21	(0.5)	44	(1.1)
Nausea	378	(9.5)	416	(10.4)	6	(0.2)	10	(0.3)
Fatigue (lethargy, malaise, asthenia)	333	(8.4)	345	(8.7)	9	(0.2)	9	(0.2)
Edema	286	(7.2)	287	(7.2)	5	(0.1)	2	(<0.1)
Myalgia	255	(6.4)	243	(6.1)	26	(0.7)	17	(0.4)
Bone fractures	223	(5.6)	158	(4.0)	76	(1.9)	45	(1.1)
Vaginal bleeding	177	(4.5)	411	(10.3)	2	(<0.1)	7	(0.2)
Headache	141	(3.5)	126	(3.2)	12	(0.3)	6	(0.2)
Vaginal irritation	139	(3.5)	122	(3.1)	6	(0.2)	3	(<0.1)
Vomiting	109	(2.7)	106	(2.7)	6	(0.2)	8	(0.2)
Dizziness/light-headedness	96	(2.4)	110	(2.8)	1	(<0.1)	8	(0.2)
Osteoporosis	79	(2.0)	44	(1.1)	6	(0.2)	7	(0.2)
Constipation	59	(1.5)	95	(2.4)	4	(0.1)	1	(<0.1)
Endometrial proliferation	10	(0.3)	71	(1.8)	1	(<0.1)	12	(0.3)

Adverse event	Grades 1-4				Grades 3-4			
	Letrozole		Tamoxifen		Letrozole		Tamoxifen	
	N=3975		N=3988		N=3975		N=3988	
	n (%)		n (%)	n (%)		n (%)		n (%)
disorders								
Endometrial cancer ¹	7/3089	(0.2)	12/3157	(0.4)	-	-	-	-
Other endometrial disorders	3	(<0.1)	4	(0.1)	0		1	(<0.1)
Myocardial infarction	17	(0.4)	14	(0.4)	15	(0.4)	11	(0.3)
Cerebrovascular/TIA	44	(1.1)	41	(1.0)	43	(1.1)	40	(1.0)
Angina	27	(0.7)	24	(0.6)	17	(0.4)	7	(0.2)
Thromboembolic event	44	(1.1)	109	(2.7)	29	(0.7)	79	(2.0)
Other cardiovascular	261	(6.6)	248	(6.2)	97	(2.4)	71	(1.8)
Second malignancies ²	76/4003	(1.9)	96/4007	(2.4)	-	-	-	-

¹ Based on safety population excluding patients who had undergone hysterectomy; time frame is any time after randomization; no CTC grades collected (yes/no response)

² Based on the intent-to-treat population; time frame is any time after randomization; no CTC grades collected (yes/no response)

577 When considering all grades, a higher incidence of events was seen for Femara regarding
578 fractures (5.7% vs. 4%), myocardial infarctions (0.6% vs. 0.4%), and arthralgia (21.2% vs.
579 13.5%) (Femara vs. tamoxifen respectively). A higher incidence was seen for tamoxifen
580 regarding thromboembolic events (1.2% vs. 2.8%), endometrial cancer (0.2% vs. 0.4%), and
581 endometrial proliferative disorders (0.3% vs. 1.8%) (Femara vs. tamoxifen respectively).

582

583 **Extended Adjuvant Treatment of Early Breast Cancer in Postmenopausal** 584 **Women who have Received 5 Years of Adjuvant Tamoxifen Therapy.**

585 The median duration of extended adjuvant treatment was 24 months and the median duration
586 of follow-up for safety was 28 months for patients receiving Femara and placebo.

587 Table 14 describes the adverse events occurring at a frequency of at least 5% in any
588 treatment group during treatment. Most adverse events reported were grade 1 and grade 2
589 based on the Common Toxicity Criteria Version 2.0. In the extended adjuvant setting, the
590 reported drug related adverse events that were significantly different from placebo were hot
591 flashes, arthralgia/arthritis, and myalgia.

592

Table 14: Percentage of patients with adverse events

593

	Number (%) of patients with grade 1-4 adverse event		Number (%) of patients with grade 3-4 adverse event	
	Femara N=2563	Placebo N=2573	Femara N=2563	Placebo N=2573
Any adverse event	2232 (87.1)	2174 (84.5)	419 (16.3)	389 (15.1)
Vascular disorders	1375 (53.6)	1230 (47.8)	59 (2.3)	74 (2.9)
Flushing	1273 (49.7)	1114 (43.3)	3 (0.1)	0
General disorders	1154 (45.0)	1090 (42.4)	30 (1.2)	28 (1.1)
Asthenia	862 (33.6)	826 (32.1)	16 (0.6)	7 (0.3)

Edema NOS	471 (18.4)	416 (16.2)	4 (0.2)	3 (0.1)
Musculoskeletal disorders	978 (38.2)	836 (32.5)	71 (2.8)	50 (1.9)
Arthralgia	565 (22.0)	465 (18.1)	25 (1.0)	20 (0.8)
Arthritis NOS	173 (6.7)	124 (4.8)	10 (0.4)	5 (0.2)
Myalgia	171 (6.7)	122 (4.7)	8 (0.3)	6 (0.2)
Back pain	129 (5.0)	112 (4.4)	8 (0.3)	7 (0.3)
Nervous system disorders	863 (33.7)	819 (31.8)	65 (2.5)	58 (2.3)
Headache	516 (20.1)	508 (19.7)	18 (0.7)	17 (0.7)
Dizziness	363 (14.2)	342 (13.3)	9 (0.4)	6 (0.2)
Skin disorders	830 (32.4)	787 (30.6)	17 (0.7)	16 (0.6)
Sweating increased	619 (24.2)	577 (22.4)	1 (<0.1)	0
Gastrointestinal disorders	725 (28.3)	731 (28.4)	43 (1.7)	42 (1.6)
Constipation	290 (11.3)	304 (11.8)	6 (0.2)	2 (<0.1)
Nausea	221 (8.6)	212 (8.2)	3 (0.1)	10 (0.4)
Diarrhea NOS	128 (5.0)	143 (5.6)	12 (0.5)	8 (0.3)
Metabolic disorders	551 (21.5)	537 (20.9)	24 (0.9)	32 (1.2)
Hypercholesterolaemia	401 (15.6)	398 (15.5)	2 (<0.1)	5 (0.2)
Reproductive disorders	303 (11.8)	357 (13.9)	9 (0.4)	8 (0.3)
Vaginal haemorrhage	123 (4.8)	171 (6.6)	2 (<0.1)	5 (0.2)
Vulvovaginal dryness	137 (5.3)	127 (4.9)	0	0
Psychiatric disorders	320 (12.5)	276 (10.7)	21 (0.8)	16 (0.6)
Insomnia	149 (5.8)	120 (4.7)	2 (<0.1)	2 (<0.1)
Respiratory disorders	279 (10.9)	260 (10.1)	30 (1.2)	28 (1.1)
Dyspnoea	140 (5.5)	137 (5.3)	21 (0.8)	18 (0.7)
Investigations	184 (7.2)	147 (5.7)	13 (0.5)	13 (0.5)
Infections and infestations	166 (6.5)	163 (6.3)	40 (1.6)	33 (1.3)
Renal disorders	130 (5.1)	100 (3.9)	12 (0.5)	6 (0.2)

594

595 The duration of follow-up for both the main clinical study and the bone study were
596 insufficient to assess fracture risk associated with long-term use of Femara. Based on a
597 median follow-up of patients for 28 months, the incidence of clinical fractures from the core
598 randomized study in patients who received Femara was 5.9% (152) and placebo was 5.5%
599 (142). The incidence of self-reported osteoporosis was higher in patients who received
600 Femara 6.9% (176) than in patients who received placebo 5.5% (141). Bisphosphonates were
601 administered to 21.1% of the patients who received Femara and 18.7% of the patients who
602 received placebo.

603 Preliminary results (median duration of follow-up was 20 months) from the bone sub-
604 study (Calcium 500 mg and Vitamin D 400 IU per day mandatory; bisphosphonates not
605 allowed) demonstrated that at 2 years the mean decrease compared to baseline in hip BMD in
606 Femara patients was 3% versus 0.4% for placebo. The mean decrease from baseline BMD
607 results for the lumbar spine at 2 years were Femara 4.6% decrease and placebo 2.2%.

608 The incidence of cardiovascular ischemic events from the core randomized study was
609 comparable between patients who received Femara 6.8% (175) and placebo 6.5% (167).

610 Preliminary results (median duration of follow-up was 30 months) from the lipid sub-
611 study did not show significant differences between the Femara and placebo groups. The

612 HDL:LDL ratio decreased after the first 6 months of therapy but the decrease was similar in
613 both groups and no statistically significant differences were detected.

614 A patient-reported measure that captures treatment impact on important symptoms associated
615 with estrogen deficiency demonstrated a difference in favour of placebo for vasomotor and
616 sexual symptom domains."

617 **First-Line Breast Cancer**

618 A total of 455 patients was treated for a median time of exposure of 11 months. The incidence
619 of adverse experiences was similar for Femara and tamoxifen. The most frequently reported
620 adverse experiences were bone pain, hot flushes, back pain, nausea, arthralgia and dyspnea.
621 Discontinuations for adverse experiences other than progression of tumor occurred in 10/455
622 (2%) of patients on Femara and in 15/455 (3%) of patients on tamoxifen.

623 Adverse events, regardless of relationship to study drug, that were reported in at least
624 5% of the patients treated with Femara 2.5 mg or tamoxifen 20 mg in the first-line treatment
625 study are shown in Table 15.

626 **Table 15 Percentage (%) of Patients with Adverse Events**

627 Adverse 628 Experience	Femara [®] 2.5 mg (N=455) %	tamoxifen 20 mg (N=455) %
630 General Disorders		
631 Fatigue	13	13
632 Chest pain	8	9
633 Edema peripheral	5	6
634 Pain not otherwise specified	5	7
635 Weakness	6	4
636 Investigations		
637 Weight decreased	7	5
638 Vascular Disorders		
639 Hot flushes	19	16
640 Hypertension	8	4
641 Gastrointestinal Disorders		
642 Nausea	17	17
643 Constipation	10	11
644 Diarrhea	8	4
645 Vomiting	7	8
646 Infections/Infestations		
647 Influenza	6	4
648 Urinary tract infection		
649 Not otherwise specified	6	3
650 Injury, Poisoning and Procedural Complications		
651 Post-mastectomy lymphedema	7	7
652 Metabolism and Nutrition Disorders		
653 Anorexia	4	6
654 Musculoskeletal and Connective Tissue Disorders		
655 Bone pain	22	21
656 Back pain	18	19
657 Arthralgia	16	15
658 Pain in limb	10	8
659 Nervous System Disorders		
660		

661	Headache not otherwise specified	8	7
662	Psychiatric Disorders		
663	Insomnia	7	4
664	Reproductive System and Breast Disorders		
665	Breast Pain	7	7
666	Respiratory, Thoracic and Mediastinal Disorders		
667	Dyspnea	18	17
668	Cough	13	13
669	Chest wall pain	6	6

670 Other less frequent ($\leq 2\%$) adverse experiences considered consequential for both
 671 treatment groups, included peripheral thromboembolic events, cardiovascular events, and
 672 cerebrovascular events. Peripheral thromboembolic events included venous thrombosis,
 673 thrombophlebitis, portal vein thrombosis and pulmonary embolism. Cardiovascular events
 674 included angina, myocardial infarction, myocardial ischemia, and coronary heart disease.
 675 Cerebrovascular events included transient ischemic attacks, thrombotic or hemorrhagic
 676 strokes and development of hemiparesis.

677 **Second-Line Breast Cancer**

678 Femara was generally well tolerated in two controlled clinical trials

679 Study discontinuations in the megestrol acetate comparison study for adverse events
 680 other than progression of tumor 5/188 (2.7%) on Femara 0.5 mg, in 4/174 (2.3%) on Femara
 681 2.5 mg, and in 15/190 (7.9%) on megestrol acetate. There were fewer thromboembolic events
 682 at both Femara doses than on the megestrol acetate arm (0.6% vs. 4.7%). There was also less
 683 vaginal bleeding (0.3% vs. 3.2%) on Femara than on megestrol acetate. In the
 684 aminoglutethimide comparison study, discontinuations for reasons other than progression
 685 occurred in 6/193 (3.1%) on 0.5 mg Femara, 7/185 (3.8%) on 2.5 mg Femara, and 7/178 of
 686 patients on (3.9%) of patients on aminoglutethimide.

687 Comparisons of the incidence of adverse events revealed no significant differences
 688 between the high and low dose Femara groups in either study. Most of the adverse events
 689 observed in all treatment groups were mild to moderate in severity and it was generally not
 690 possible to distinguish adverse reactions due to treatment from the consequences of the
 691 patient's metastatic breast cancer, the effects of estrogen deprivation, or intercurrent illness.

692 Adverse events, regardless of relationship to study drug, that were reported in at least
 693 5% of the patients treated with Femara 0.5 mg, Femara 2.5 mg, megestrol acetate, or
 694 aminoglutethimide in the two controlled trials are shown in Table 16.

695

696 **Table 16: Percentage (%) of Patients with Adverse Events**

697 Adverse	Pooled	Pooled	megestrol	
698 Experience	Femara [®]	Femara [®]	acetate	aminoglutethimide
699	2.5 mg	0.5 mg	160 mg	500 mg
700	(N=359)	(N=380)	(N=189)	(N=178)
701	%	%	%	%
702 Body as a Whole				
703 Fatigue	8	6	11	3
704 Chest pain	6	3	7	3
705 Peripheral edema ¹	5	5	8	3

706	Asthenia	4	5	4	5
707	Weight increase	2	2	9	3
708	Cardiovascular				
709	Hypertension	5	7	5	6
710	Digestive System				
711	Nausea	13	15	9	14
712	Vomiting	7	7	5	9
713	Constipation	6	7	9	7
714	Diarrhea	6	5	3	4
715	Pain-abdominal	6	5	9	8
716	Anorexia	5	3	5	5
717	Dyspepsia	3	4	6	5
718	Infections/Infestations				
719	Viral infection	6	5	6	3
720	Lab Abnormality				
721	Hypercholesterolemia	3	3	0	6
722	Musculoskeletal System				
723	Musculoskeletal ²	21	22	30	14
724	Arthralgia	8	8	8	3
725	Nervous System				
726	Headache	9	12	9	7
727	Somnolence	3	2	2	9
728	Dizziness	3	5	7	3
729	Respiratory System				
730	Dyspnea	7	9	16	5
731	Coughing	6	5	7	5
732	Skin and Appendages				
733	Hot flushes	6	5	4	3
734	Rash ³	5	4	3	12
735	Pruritus	1	2	5	3

736 ¹ Includes peripheral edema, leg edema, dependent edema, edema

737 ² Includes musculoskeletal pain, skeletal pain, back pain, arm pain, leg pain

738 ³ Includes rash, erythematous rash, maculopapular rash, psoriasiform rash, vesicular rash

739 Other less frequent (<5%) adverse experiences considered consequential and reported
740 in at least 3 patients treated with Femara, included hypercalcemia, fracture, depression,
741 anxiety, pleural effusion, alopecia, increased sweating and vertigo.

742 Post-Marketing Experiences

743 Cases of blurred vision and increased hepatic enzyme have been uncommonly (<1%) reported
744 since market introduction.

745 OVERDOSAGE

746 Isolated cases of Femara[®] (letrozole tablets) overdose have been reported. In these instances,
747 the highest single dose ingested was 62.5 mg or 25 tablets. While no serious adverse events
748 were reported in these cases, because of the limited data available, no firm recommendations
749 for treatment can be made. However, emesis could be induced if the patient is alert. In
750 general, supportive care and frequent monitoring of vital signs are also appropriate. In single
751 dose studies the highest dose used was 30 mg, which was well tolerated; in multiple dose
752 trials, the largest dose of 10 mg was well tolerated.

753 Lethality was observed in mice and rats following single oral doses that were equal to
754 or greater than 2000 mg/kg (about 4000 to 8000 times the daily maximum recommended
755 human dose on a mg/m² basis); death was associated with reduced motor activity, ataxia and
756 dyspnea. Lethality was observed in cats following single IV doses that were equal to or
757 greater than 10 mg/kg (about 50 times the daily maximum recommended human dose on a
758 mg/m² basis); death was preceded by depressed blood pressure and arrhythmias.

759 **DOSAGE AND ADMINISTRATION**

760 **Adult and Elderly Patients**

761 The recommended dose of Femara[®] (letrozole tablets) is one 2.5 mg tablet administered once
762 a day, without regard to meals. In patients with advanced disease, treatment with Femara
763 should continue until tumor progression is evident.

764 In the extended adjuvant setting, the optimal treatment duration with Femara is not known.
765 The planned duration of treatment in the study was 5 years. However, at the time of the
766 analysis, the median treatment duration was 24 months, 25% of patients were treated for at
767 least 3 years and less than 1% of patients were treated for the planned duration of 5 years.
768 The median duration of follow-up was 28 months. Treatment should be discontinued at tumor
769 relapse (see CLINICAL STUDIES).

770
771 In the adjuvant setting, the optimal duration of treatment with letrozole is unknown. The
772 planned duration of treatment in the study is 5 years. However, at the time of analysis, the
773 median duration of treatment was 24 months, median duration of follow-up was 26 months,
774 and 16% of the patients have been treated for 5 years. Treatment should be discontinued at
775 relapse. (see CLINICAL STUDIES).

776

777 No dose adjustment is required for elderly patients. Patients treated with Femara do not
778 require glucocorticoid or mineralocorticoid replacement therapy.

779 **Renal Impairment**

780 (See CLINICAL PHARMACOLOGY.) No dosage adjustment is required for patients with
781 renal impairment if creatinine clearance is ≥ 10 mL/min.

782 **Hepatic Impairment**

783 No dosage adjustment is recommended for patients with mild to moderate hepatic
784 impairment, although Femara blood concentrations were modestly increased in subjects with
785 moderate hepatic impairment due to cirrhosis. The dose of Femara in patients with cirrhosis
786 and severe hepatic dysfunction should be reduced by 50% (see CLINICAL
787 PHARMACOLOGY). The recommended dose of Femara[®] (letrozole tablets) for such patients
788 is 2.5 mg administered every other day. The effect of hepatic impairment on Femara exposure
789 in noncirrhotic cancer patients with elevated bilirubin levels has not been determined. (See
790 CLINICAL PHARMACOLOGY.)

791 **HOW SUPPLIED**

792 2.5 mg tablets - dark yellow, film-coated, round, slightly biconvex, with beveled edges
793 (imprinted with the letters FV on one side and CG on the other side).

794 Packaged in HDPE bottles with a safety screw cap.

795 Bottles of 30 tabletsNDC 0078-0249-15

796 Store at 25°C (77°F); excursions permitted to 15°C-30°C (59°F-86°F). [See USP Controlled
797 Room Temperature].

798

799 T200X-XX

800 REV: XXXX 200X

Printed in U.S.A.

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